Preliminary Amendment New U.S. Patent Application

#### **REMARKS**

Applicants respectfully request favorable consideration of this application and the timely allowance of the pending claims.

The new claims are fully supported by the present specification and introduce no new matter.

Should the Examiner deem that any further action by applicant or applicant's representative is desirable or required, the Examiner is invited to telephone the undersigned at the number set forth below.

If there are any fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925.

Respectfully submitted,

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Enclosure: Appendix - Marked-up Version of the Claims

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### APPENDIX - MARKED-UP VERSION OF THE CLAIMS

Please amend claims 4, 6, 7, and 10-17 as follows:

- 4. An abrasive flap disc as claimed in [any preceding claim] claim\_1, wherein the angle between the backing plate and each flap is in the range of approximately 20° to approximately 90°.
- 6. An abrasive flap disc as claimed in [any preceding claim] claim\_1, wherein a centerline of each flap, which extends between its radially inner and outer edges, is substantially on a radius of the backing plate.
- 7. An abrasive flap disc as claimed in claim 1[ to 5], wherein the centerline of each flap, which extends between its radially inner and outer edges, is at an angle relative to a radius of the backing plate.
- 10. An abrasive flap disc as claimed in [any preceding claim] claim\_1, wherein the flaps comprise abrasive grit bonded to a backing material.
- 11. An abrasive flap disc as claimed in [any preceding claim] claim\_1, wherein the backing plate includes means to attach the disc to a drive mechanism.
- 12. A method of producing an abrasive flap disc of the type set out in claim 1, comprising the steps of:

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providing a backing plate;

providing an adhesive on an upper surface of the backing plate;

rotating the backing plate incrementally;

at each incremental step, feeding the end of a strip of abrasive material on to the adhesive on the backing plate;

severing the end of the strip to form a flap;

repeating the process until an annular array of flaps is formed on the backing plate with each flap, at least in a radially outer region, being spaced from each adjacent flap;

maintaining the flaps in spaced [positioned] position; and curing the adhesive to secure the flaps to the backing plate.

- 13. A method of producing an abrasive flap disc as claimed in claim 12, wherein after constructing the array of flaps and before curing, the method further includes the step of placing the disc in a former adapted to prevent each flap from falling into substantial contact with an adjacent flap.
- 14. A method of producing an abrasive flap disc as claimed in claim 13, wherein the former includes a cylindrical wall dimensioned to encircle the disc and prevent each flap from falling into substantial contact with an adjacent flap.
- 15. A method of producing an abrasive flap disc as claimed in [claims 13 or 14] claim 13, wherein a spoke-shaped frame is placed with a spoke positioned between adjacent flaps to prevent each flap from falling into substantial contact with an adjacent flap.

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- 16. A method of producing an abrasive flap disc as claimed in [any of claims 12 to 15] claim 12, comprising the step of feeding the strip of abrasive material such that each flap has a centerline extending from its radially inner to outer edge and which is substantially on a centerline of the backing plate.
- 17. A method of producing an abrasive flap disc as claimed in [any of claims 12 to 15] claim\_12, comprising the step of feeding the strip of abrasive material such that each flap has a centerline extending from its radially inner to outer edge and which is at an angle relative to a radius of the backing plate.

Please add new claims 18-20 as follows:

--18. A method of producing an abrasive flap disc, comprising the steps of:

providing a backing plate;

providing an adhesive on an upper surface of the backing plate;

rotating the backing plate incrementally;

at each incremental step, feeding the end of a strip of abrasive material on to the adhesive on the backing plate;

severing the end of the strip to form a flap;

repeating the process until an annular array of flaps is formed on the backing plate with each flap, at least in a radially outer region, being spaced from each adjacent flap;

maintaining the flaps in spaced position; and

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curing the adhesive to secure the flaps to the backing plate.

- 19. A method of producing an abrasive flap disc as claimed in claim 18, wherein after constructing the array of flaps and before curing, the method further includes the step of placing the disc in a former adapted to prevent each flap from falling into substantially contact with an adjacent flap.
- 20. A method of producing an abrasive flap disc as claimed in claim 18, comprising the step of feeding the strip of abrasive material such that each flap has a centerline extending from its radially inner to outer edge and which is at an angle relative to a radius of the backing plate.--